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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/806,136	03/23/2004	Piet Van Dine	64373.001001	1969

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EXAMINER

POULOS, SANDRA K

ART UNIT	PAPER NUMBER
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1714

DATE MAILED: 07/24/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/806,136	VAN DINE, PIET	
	Examiner	Art Unit	
	Sandra K. Poulos	1714	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-42 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-42 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>9/13/04</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Information Disclosure Statement

1. The references US 4,522,009 entitled "Lock rod system for flooring grating and method for assembling same" and US 4,727,704 entitled "Grating structure and method for assembly" have not been considered because they do not appear relevant to the present application which concerns a fire retardant composition.

Specification

2. The disclosure is objected to because of the following informalities: Under the brief description of the drawing there are two explanations for Figure 2 and none for Figure 3 (para 15-16). Appropriate correction is required.

Claim Rejections - 35 USC § 102/103

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any

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evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. Claims 1, 5, 11-16, 20, 26-42 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Crompton (US 5,058,342).

Crompton discloses a molding material that has low smoke emission, low toxic fume, and high stability under heat up to 1000 degrees (col 2, lines 31-34). The molded component is produced by mixing phenolic resin, alumina trihydrate, frit, and chopped glass strands, and ceramic fiber (col 4, lines 30-42; col 1 line 66 to col 2 line 29).

Although Crompton is silent with respect to the ASTM E-1354 properties for the noncombustible composition, absent evidence to the contrary it is examiner's position that Crompton would inherently meet the claimed properties since it contains the same fire resistant components as those currently claimed, or alternatively, the presently claimed properties would obviously have been present in the Crompton product.

It is noted that claims 11 and 26 are product-by-process claims and therefore "even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." See *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985). Claims 11 and 26 disclose various methods of molding and the Crompton discloses composition as broadly being molded. Examiner's position is that the various types of molding do not result in a materially different fire resistance composite or structural part, thus the molded composition in Crompton is the same as that currently claimed in claims 11 and 26.

Furthermore, the intended uses of the structural component in claims 28, 32-42 does not make the claims patentably distinct from Crompton because case law holds that a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. See *In re Casey*, 152 USPQ 235 (CCPA 1967) and *In re Otto*, 136 USPQ 458, 459 (CCPA 1963).

4. Claims 1, 3-5, 7, 9, 11-16, 18-20, 22, 24, 26-42 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over JP 10-324762 (abstract and machine translation used hereafter) in view of the evidence by Plastic Additives or Fire Retardant Materials.

JP 762 discloses a high strength, solid, noncombustible phenol resol resin foam containing aluminum hydroxide and glass fibers (abstract). A resol is a base catalyzed phenolic resin. Based on the example in the abstract, the resol phenolic resin is calculated to be present in an amount of 15 to 32% based on the amount of all components. The composition is cured and molded (abstract). Plastic Additives discloses that aluminum trihydroxide is often referred to as alumina trihydrate (pg 288-290); Fire Retardant Materials discloses that alumina trihydrate actually does not have water of hydration in its structure and is thus aluminum hydroxide (pg 56). The composition is used for the wallplate of a building, roofing, flooring, and fireproof storage warehouse (para 1) and thus is suitable for forming into a structural part. The amount of aluminum hydroxide is calculated to be from 8 to 33% based on the total weight of the composition (based on 100-250 pts.wt. of aluminum hydroxide present).

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Although JP 762 is silent with respect to the ASTM E-1354 properties for the noncombustible composition, absent evidence to the contrary it is examiner's position that JP 762 would inherently meet the claimed properties since it contains the same fire resistant components as those currently claimed, or alternatively, the presently claimed properties would obviously have been present in the JP 762 product.

It is noted that claims 11 and 26 are product-by-process claims and therefore "even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." See *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985). Claims 11 and 26 disclose various methods of molding and the JP 762 discloses composition as broadly being molded. Examiner's position is that the various types of molding do not result in a materially different fire resistance composite or structural part, thus the molded composition in JP 762 is the same as that currently claimed in claims 11 and 26.

Furthermore, the intended uses of the structural component in claims 28, 32-42 does not make the claims patentably distinct from JP 762 because case law holds that a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. See *In re Casey*, 152 USPQ 235 (CCPA 1967) and *In re Otto*, 136 USPQ 458, 459 (CCPA 1963).

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5. Claims 1, 2, 5, 11-17, 20, 26-42 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over JP 2000-351881 (abstract and machine translation used hereafter) in view of Plastic Additives or Fire Retardant Materials.

JP 881 discloses a flame retardant resin composition and molded article made thereof which contains a styrene resin, glass fibers, glass powder, red phosphorous with aluminum hydroxide (abstract). Plastic Additives discloses that aluminum trihydroxide is often referred to as alumina trihydrate (pg 288-290); Fire Retardant Materials discloses that alumina trihydrate actually does not have water of hydration in its structure and is thus aluminum hydroxide (pg 56). The composition further contains phenolic resins (abstract), particularly novolak resin (para 33). A novolak is an acid catalyzed phenolic resin. The molded composition can be used in several applications motor components and automotive applications (para 59-60).

Although JP 881 is silent with respect to the ASTM E-1354 properties for the noncombustible composition, absent evidence to the contrary it is examiner's position that JP 881 would inherently meet the claimed properties since it contains the same fire resistant components as those currently claimed, or alternatively, the presently claimed properties would obviously have been present in the JP 881 product.

It is noted that claims 11 and 26 are product-by-process claims and therefore "even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." See *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985). Claims 11 and 26 disclose various methods of molding and the JP 881 discloses composition as being extrusion, injected or compression molded (para 59). Examiner's position

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is that the various types of molding do not result in a materially different fire resistance composite or structural part, thus the molded composition in JP 881 is the same as that currently claimed in claims 11 and 26.

Furthermore, the intended uses of the structural component in claims 28, 32-42 does not make the claims patentably distinct from that in JP 881 because case law holds that a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. See *In re Casey*, 152 USPQ 235 (CCPA 1967) and *In re Otto*, 136 USPQ 458, 459 (CCPA 1963).

6. Claims 1, 3, 5, 6, 11-16, 18, 20, 21, 26-42 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over JP 05162224 (abstract and machine translation used hereafter) in view of Plastic Additives or Fire Retardant Materials.

JP 224 discloses a heat insulating board that is excellent in flame retardancy and contains a resol-type phenolic resin with 65% glass fiber and 20% aluminum hydroxide (abstract). Plastics Additives discloses that aluminum trihydroxide is often referred to as alumina trihydrate (pg 288-290); Fire Retardant Materials discloses that alumina trihydrate actually does not have water of hydration in its structure and is thus aluminum hydroxide (pg 56).

Although JP 224 is silent with respect to the ASTM E-1354 properties for the noncombustible composition, absent evidence to the contrary it is examiner's position that JP 224 would inherently meet the claimed properties since it contains the same fire resistant

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components as those currently claimed, or alternatively, the presently claimed properties would obviously have been present in the JP 224 product.

It is noted that claims 11 and 26 are product-by-process claims and therefore "even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." See *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985). Claims 11 and 26 disclose various methods of molding and the JP 224 discloses composition is formed into a board. Examiner's position is that the various types of molding do not result in a materially different fire resistance composite or structural part, thus the molded composition in JP 224 is the same as that currently claimed in claims 11 and 26.

Furthermore, the intended uses of the structural component in claims 28, 32-42 does not make the claims patentably distinct from that in JP 224 because case law holds that a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. See *In re Casey*, 152 USPQ 235 (CCPA 1967) and *In re Otto*, 136 USPQ 458, 459 (CCPA 1963).

Claim Rejections - 35 USC § 103

7. Claims 8 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 881 as applied to claims 1, 2, 5, 11-17, 20, 26-42 above, and further in view of JP 762.

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The discussion with respect to JP 881 in paragraph 5 above is incorporated herein by reference.

JP 881 does not disclose the amount of aluminum hydroxide used.

JP 762 discloses the composition in paragraph 4 above. The composition contains phenolic resin, aluminum hydroxide, and glass fiber. The amount of aluminum hydroxide is 8 to 33% based on the total weight of the composition. It would have been obvious to one of ordinary skill in the art to incorporate aluminum hydroxide in the amount disclosed by JP 762 because both compositions have similar components and the aluminum hydroxide in JP 762 is present in an amount sufficient to show good fire retardant properties.

8. Claims 10 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Crompton or JP 881 as applied to claims above, and further in view of Itagaki et al (US 2001/0018487).

The discussion with respect to Crompton and JP 881 in paragraphs 3 and 5 above is incorporated herein by reference.

The above references do not disclose that the fire resistant material additionally contains a siloxane modifier.

Itagaki discloses a flame retardant composition for use in molded parts (abstract). The resin should be an aromatic polymer; examples of the resins used are novolak phenolic resins (para 26). In molding the composition of the invention, any of well-known molding methods such as injection molding extrusion molding compression molding and vacuum forming may be used (para 56). It would have been obvious to one of ordinary skill in the art to incorporate the siloxane additive into the compositions in Crompton or JP 881 because the siloxane additive

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gives the resin composition good flame retardance and drip inhibition, maintains optical transparency, and can be recycled for reuse (para 20, 29, 30).

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

JP 10-095894 discloses a phenolic resin molding material which can give excellent moisture resistance, heat resistance, and flame retardancy (abstract). The composition also contains 70-140 part glass fiber per 100 parts resin, red phosphorous, and aluminum hydroxide (abstract).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sandra K. Poulos whose telephone number is (571) 272-6428. The examiner can normally be reached on M-F 8:00-4:30 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on (571) 272-1119. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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